

WHAT IS CLAIMED IS:

1. A composition comprising fibers of electroprocessed collagen or electroprocessed fibrinogen, wherein the fibers have an average diameter between about 50 nm and about 10 μ m, and the composition is effective as a sealant.
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2. A composition comprising isolated fibers comprising collagen or fibrinogen, wherein the fibers have an average diameter between about 50 nm and about 10 μ m, and the composition is effective as a sealant.
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3. A composition comprising electroprocessed fibrinogen, wherein the electroprocessed fibrinogen is insoluble in water.
4. A composition comprising fibrinogen, wherein the fibrinogen is insoluble in water.
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5. A composition comprising electroprocessed fibrinogen, wherein the electroprocessed fibrinogen is present as fibers having a repeating banding pattern.
6. A composition comprising an electroprocessed material, wherein the electroprocessed material is effective as a sealant.
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7. The composition of any of Claims 1-6, wherein the composition is effective to cause hemostasis.
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8. The composition of any of Claims 1-7, further comprising a substance.
9. The composition Claim 8, wherein the substance is selected from thrombin, aprotinin, Factor XIII, calcium chloride, hydroxyapatite, a fibrinolytic inhibitor, a fibrinolytic agent, fibronectin, or a combination thereof.
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10. The use of the composition of any of Claims 1-9 in the preparation of a sealant.
11. The use of the composition of any of Claims 1-9 in the preparation of a medicament useful in providing physical reinforcement to tissue, repairing an injury or defect in tissue, promoting healing, causing hemostasis, or a combination thereof.
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12. A method of manufacturing a composition, comprising electroprocessing one or more electrically-charged solutions comprising collagen, fibrinogen, or a combination thereof under conditions effective to electrodeposit electroprocessed material onto a substrate to form fibers having an average diameter between about 50 nm and about 10 μm .

13. A method of manufacturing the composition of any of Claims 1-9, comprising electroprocessing one or more electrically-charged solutions comprising material under conditions effective to electrodeposit electroprocessed material onto a substrate to form the electroprocessed material.